International Application No. PCT/EP99/07216

REMARKS

All rights are reserved to the original claimed subject matter. The claims have been amended to reduce the filing fees and to better conform to U.S. claim format. Examination of the application as amended is respectfully requested.

Respectfully submitted,
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APPENDIX OF CLAIMS

A1

1(Amended). A data medium comprising a printed image produced by the intaglio printing process, said image comprising at least one first ink area with a first ink layer thickness and at least one second ink area with a second ink thickness adjacent to the first ink area, wherein the ink layer thicknesses are different, the first and second ink areas are directly adjacent to each other and are separated from each other by a sharp border line not visible to the naked eye, and that the ink layer thickness of both ink areas passes through a minimum in the region of the border line.

2(Amended). The data medium according to Claim 1, wherein the minimum is an ink layer thickness of almost zero.

3(Amended). The data medium according to Claim 1 or 2, wherein the first ink area and/or the second ink area represent a pattern, graphical symbol or text symbol.

4(Amended). A printing plate for the printing of adjacent ink areas, comprising a printing plate surface and engraved in the printing plate surface, at least one first engraving area with a first engraving depth and at least one second engraving area with a second engraving depth adjacent to the first engraving area, such that the engraving, depths are different, and wherein,

between the first and the second engraved areas, is arranged a separating edge the upper edge of which extends towards a point at the level of the printing plate surface.

5(Amended). The printing plate according to Claim 4, wherein

the separating edge has flank angles in the region between 15° and 60°, preferably between 30° and 50°, relative to the perpendicular to the printing plate surface.

6(Amended). The printing plate according to Claim 4 or 5, wherein the first and second engraving depths lie in the region between 5 and 250 µm.

7(Amended). The printing plate according to Claim 6, wherein the first and second engraving depths lie in the region between 5 and 150 µm.

8(Amended). The printing plate according to claim 4 or 5, wherein the first engraved area and/or the second engraved area are forms selected from the group consisting of a pattern, a graphical symbol and a text symbol.

9(Amended). The printing plate according to claim 4 or 5, wherein the first and/or the second engraved area have a floor area having a floor roughness pattern.

10(Amended). An intaglio printing process for the printing of adjacent ink areas with different ink layer thicknesses, using a printing plate according to claim 4 or 5 is used.

11(Amended). A process for the manufacture of a printing plate for the printing of adjacent ink areas with different ink layer thicknesses, comprising the following steps:

providing a printing plate with a printing plate surface and

engraving a first engraving area with a first engraving depth and a second engraving area with a second engraving depth in the printing plate surface, such that between the first engraving area and the second engraving area, a separating edge remains, said separating edge having an upper edge which extends towards a point at the height of the printing plate surface.

A1 Conclusion

12(Amended). The process according to Claim 11, wherein the separating edges are formed with flank angles in the region of 15° to 60°, preferably 30° to 50° relative to the perpendicular to the printing plate surface.

13(Amended). The process according to Claim 11 or 12, wherein an engraving tool with a suitable flank angle is used for engraving.

14(Amended). The process according to Claim 13, wherein a rotating graver coming to a point is used for engraving.

15(Amended). The process according to claim 11 or 12, wherein the engraving depths are created in the region from 5 µm to 250 µm.

16(Amended). The process according to Claim 15, wherein the engraving depths lie in the region from 5 µm to 150 µm.

17(Amended). The process according to claim 11 or 12, wherein in the first engraving area and/or in the second engraving area, a floor area with a floor roughness pattern is created.

18(Amended). The process according to claim 11 or 12, wherein several adjacent first engraving areas and one or more adjacent second engraving areas are engraved in the printing plate surface.

19(Amended). The process according to claim 11 or 12, wherein the first or the several first engraving areas and/or the second or the several second engraving areas are arranged in the form of a pattern, graphical symbol or text symbol.

20(New). A data carrier according to claim 1 or 2, wherein the ink areas are of linear or areal form.

21(New). The printing plate according to claim 4 or 5, wherein the engraved areas are formed by linear or areal depressions.

22(New). The process according to claim 11, including forming the engraved areas by linear or areal depressions.

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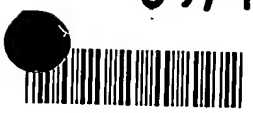

APPENDIX OF MARKED UP CLAIMS

1(Amended). [Data] A data medium [(1) with] comprising a printed image produced by the intaglio printing process, said image comprising [having] at least one first ink area [(12a)] with a first ink layer thickness [(D_a)] and at least one second ink area [(12b)] with a second ink thickness [(D_b)] adjacent to the first ink area, [whereby] wherein the ink layer thicknesses [(D_a, D_b)] are different,

[characterised in that]

the first and second ink areas [(12a, 12b)] are directly adjacent to each other and are separated from each other by a sharp border line not visible to the naked eye, and that the ink layer thickness of both ink areas [(12a, 12b)] passes through a minimum in the region of the border line.

2(Amended). [Data] The data medium according to Claim 1, wherein

[characterised in that]

the minimum is an ink layer thickness of almost zero.

3(Amended). [Data] The data medium according to Claim 1 or 2, wherein

[characterised in that]

the first ink area [(12a)] and/or the second ink area [(12b)] represent a pattern, graphical symbol or text symbol.

4(Amended). [Printing] A printing plate [(1)] for the printing of adjacent ink areas [(12a, 12b)], [including] comprising a printing plate surface [(2)] and engraved in the printing plate surface [(2)], at least one first engraving area [(3a)] with a first engraving depth [(t_a)] and at least one second engraving area [(3b)] with a second engraving depth [(t_b)] adjacent to the first engraving area [(3a)], such that the engraving, depths [(t_a, t_b)] are different, and wherein,

[characterised in that]

between the first and the second engraved areas [(3a, 3b)], is arranged a separating edge [(5)] the upper edge [(6)] of which [runs] extends towards a point at the level of the printing plate surface [(2)].

5(Amended). [Printing] The printing plate according to Claim 4, wherein

[characterised in that]

the separating edge [(5)] has flank angles [(a)] in the region between 15° and 60°, preferably between 30° and 50°, relative to the perpendicular to the printing plate surface [(2)].

6(Amended). [Printing] The printing plate according to Claim 4 or 5, wherein

[characterised in that]

the first and second engraving depths [(t_a, t_b)] lie in the region between 5 and 250 μm.

7(Amended). [Printing] The printing plate according to Claim 6, wherein

[characterised in that]

the first and second engraving depths [(t_a, t_b)] lie in the region between 5 and 150 μm.

8(Amended). [Printing] The printing plate according to [at least one of the claims 4 to 7] claim 4 or 5, wherein

[characterised in that]

the first engraved area [(3a)] and/or the second engraved area [(3b) form] are forms selected from the group consisting of a pattern, a graphical symbol [or] and a text symbol.

9(Amended). [Printing] The printing plate according to [at least one of the claims 4 to 8] claim 4 or 5, wherein

[characterised in that]

the first and/or the second engraved area [(3a, 3b)] have a floor area [(7)] having a floor roughness pattern.

10(Amended). [Intaglio] An intaglio printing process for the printing of adjacent ink areas [(12a, 12b)] with different ink layer thicknesses [(D_a, D_b)], [whereby] using a printing plate according to [one of the claims 4 to 9] claim 4 or 5 is used.

11(Amended). [Process] A process for the manufacture of a printing plate [(1)] for the printing of adjacent ink areas [(12a, 12b)] with different ink layer thicknesses [(D_a, D_b)], [including] comprising the following steps:

[provision of] providing a printing plate [(1)] with a printing plate surface [(2)] and

engraving [of] a first engraving area [(3a)] with a first engraving depth [(t_a)] and a second engraving area [(3b)] with a second engraving depth [(t_b)] in the printing plate surface [(2)], such that between the first engraving area [(3a)] and the second engraving area [(3b)], a separating edge [(5)] remains, said separating edge having an upper edge [(6)] which [runs] extends towards a point at the height of the printing plate surface [(2)].

12(Amended). [Process] The process according to Claim 11, wherein

[characterised in that]

the separating [ridges] edges [(5)] are formed with flank angles [(α)] in the region of 15° to 60°, preferably 30° to 50° relative to the perpendicular to the printing plate surface.

13(Amended). [Process] The process according to Claim 11 or 12, wherein

[characterised in that]

an engraving tool with a suitable flank angle [(α)] is used for engraving.

14(Amended). [Process] The process according to Claim 13, wherein

[characterised in that]

a rotating graver coming to a point is used for engraving.

15(Amended). [Process] The process according to [at least one of the claims 11 to 14,] claim 11 or 12, wherein

[characterised in that]

the engraving depths [(t_a, t_b)] are created in the region from 5 µm to 250 µm.

16(Amended). [Process] The process according to Claim 15, wherein

[characterised in that]

the engraving depths [(t_a, t_b)] lie in the region from 5 µm to 150 µm.

17(Amended). [Process] The process according to [at least one of the claims 11 to 16,] claim 11 or 12, wherein

[characterised in that]

in the first engraving area [(3a)] and/or in the second engraving area [(3b)], a floor area [(7)] with a floor roughness pattern is created.

18(Amended). [Process] The process according to [at least one of the claims 11 to 17,] claim 11 or 12, wherein

[characterised in that]

several adjacent first engraving areas [(3a)] and one or more adjacent second engraving areas [(3b)] are engraved in the printing plate surface [(2)].

19(Amended). [Process] The process according to [at least one of the claims 11 to 18,] claim 11 or 12, wherein

[characterised in that]

the first or the several first engraving areas [(3a)] and/or the second or the several second engraving areas [(3b)] are arranged in the form of a pattern, graphical symbol or text symbol.

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